

## The factors influencing on knowledge, attitudes, and practices in women with breast cancer referring to health centers of Ilam in 2013

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### ABSTRACT

**Background and aims:** The mortality rate for breast cancer is directly related to the stage of disease at diagnosis. The present study was aimed to determine the factors influencing on knowledge, attitudes, and practices in women with breast cancer and its screening methods.

**Methods:** In a cross- sectional study, we evaluated 383 women who referred to health centers of Ilam. Sampling was done in 2 stages. The inclusion criteria were included healthy women with minimum education level. Data were collected by a two-section questionnaire including demographic characteristics and knowledge, attitudes and practices of women with the breast cancer and its screening methods. Data were analyzed using chi-square and t-test in SPSS software. The level of significance was considered  $P < 0.05$ .

**Results:** The Mean  $\pm$  SD knowledge score was  $22.43 \pm 11.01$ . The Mean  $\pm$  SD attitude and performance score were  $29.08 \pm 3.34$  and  $3.52 \pm 1.66$ , respectively. There was a significant correlation between age, occupation and education with knowledge, attitude and practice of women with breast cancer and its screening methods ( $P < 0.05$ ). There was no significant relationship among the marital status, history of benign breast disease and family history with knowledge, attitudes and practices of breast cancer and screening methods, ( $P > 0.05$ ).

**Conclusion:** Half of the participants had good knowledge about breast cancer and screening procedures, but, all the participants with good knowledge had not good practice. Therefore, further training is necessary to enhance awareness and more research should be conducted to identify barriers to women's performance.

**Keywords:** Breast cancer, cross- sectional study, screening methods.

### INTRODUCTION

Breast cancer is the most common cancer in developed and developing countries. Breast cancer is the cause of 19% of all deaths in women.<sup>1</sup>

Women of all ages are at risk of breast cancer, but the risk of breast cancer increases with ageing.<sup>2</sup>

A study reported that breast cancer comprises one third of all cancers.<sup>3</sup>

It is the most common cancer after lung cancer in Southeast Asia, and the leading cause of mortality from cancer in women, so that over one million new cases of breast cancer are diagnosed in women.<sup>2,4</sup>

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Breast cancer kills half a million people worldwide annually with over 70% of cases occurring in countries with low and average economic status.<sup>4</sup> The number of breast cancer patients in Iran is increasing and the breast cancer is the second most prevalent cancer in Iran.<sup>1,3</sup> Notably, breast cancer occurs 10 years earlier in Iranian women than the developed countries. The ages of 45-55 years are the most common ages for breast cancer in Iranian women.<sup>3</sup>

Despite recent advances, there is no confirmed method for the prevention of breast cancer. Early and prompt recognition is the only way to fight this disease.<sup>5</sup> In most cases, lack of awareness of symptoms and methods of early diagnosis of breast cancer may postpone patients' referring for treatment.

Late referring to hospital will result in reduced effectiveness of treatment and reduce the likelihood of survival of patients.<sup>1</sup> According to previous studies, an increase in public awareness and earlier diagnosis and effective treatment are the main factors effective on long life and survival rate. With early diagnosis, the survival rate is 90% while the percentage of women with breast cancer at advanced stages decreases to 60%.<sup>6</sup> The mortality rate from this cancer is directly related to the stage of disease at diagnosis.<sup>7</sup>

Breast self-examination (BSE), examination by midwives and doctors and mammography are three methods used for early diagnosis of breast cancer.<sup>1</sup> Unfortunately in some cases, this method is not used seriously.<sup>8</sup>

Due to the high incidence of breast cancer, the low age at breast cancer development in Iranian women and the importance of early diagnosis on prognosis, the present study was conducted to assess the women's knowledge, attitude and practices (KAP)

of breast cancer and screening methods in Ilam in 2013.<sup>9</sup>

## METHODS

This cross-sectional study was conducted in health centers in Ilam in 2013. A list of eligible women to participate in the study was prepared to determine the sample size, in collaboration with the health centers authorities. While the American Society of Obstetrics and Gynecology recommends that BSE and examination by the physician must be started in early twenties, studies indicate that only 1% of breast cancers occur in women younger than 25 years. However, the incidence of breast cancer rises after 30 years.<sup>10</sup> The rapid rise and increasing health care costs are related to diagnosis and treatment throughout the world; therefore, the experts, economists, managers and health care providers are finding new ways to limit their costs.<sup>11</sup> Therefore, in the present study, were selected women in the age group of 25-50 years. The sample size was estimated 383 patients considering  $P=0.0003$ ,  $N=24063$ ,  $t=1.96$  and  $d=0.05$  using the Cochrane statistical formula. Sampling was conducted in two stages. In the first stage we selected 6 health centers from different regions of Ilam using the cluster sampling method. Then the samples were selected by simple random sampling.

The inclusion criteria were included; physical and mental health and at least to be able to reading and writing, respectively. The exclusion criteria were women's lack of willingness to participate in the study.

Data were collected by a two-part questionnaire. The first part of the questionnaire contains 13 questions about demographic characteristics. The second section consists of 22 questions about participant's knowledge, 9 questions about

participant's attitudes, and 5 questions in relation to the participant's performance about the breast cancer.

The questionnaire validity was confirmed by the 5 members of the faculty in related fields, reading books, publications and other research results. The questionnaire reliability was assessed using Cronbach's alpha coefficient.

A Likert scoring was used to determine the participant's level of awareness. So, that was considering the correct answers= 2, I do not know= 1 and false answers= 0. The overall knowledge score was 44. Participants were placed in 3 groups according to the obtained scores; including poor knowledge (score less than 21), medium knowledge (21 to 24 points) and good knowledge (more than 24).

A 5 points Likert scoring was used to determine the participant's level of attitude. So that considering the totally agree= 4, agree= 3, no comment= 2, disagree=1 and strongly disagree= 0. The overall attitude score was 36. Participants were placed in 3 groups according to the obtained scores, including poor attitude

(score less than 26), medium attitude (26 to 32 points) and good attitude (more than 32).

Performance questions, measure with two options I do= 1 and I not to do= 0. This study was undertaken with the approval of the Ethical Committee of the Ilam University of Medical Sciences (Ethical NO; 928026/99). The aim of the study was described an informed consent obtained from all participants before the enrolment in the study.

Categorical variables such as education, and job were analysed by  $\chi^2$  analysis of 3×2 contingency tables or by Fisher's exact test, followed by a similar analysis by 2×2 tables for differences within the groups. SPSS software package 16 was used to analyze the data of this study.

## RESULTS

A total of 383 women were enrolled in this study. The Mean  $\pm$  SD age was 32.42 $\pm$ 7.89 years. Demographic characteristics of the study participants according to the breast cancer knowledge and screening methods are presented (Table 1).

**Table 1:** Comparison of characteristics of participants in the present study according to the breast cancer knowledge and screening methods

Characteristics		Level of knowledge			P
		Poor	Medium	Good	
Age*		30.08 $\pm$ 0.74	31.62 $\pm$ 1.46	32.6 $\pm$ 0.5	0.006
Education**	Elementary school	50	6.2	43.8	0.001
	Middle school	51.9	11.1	37	
	High school	56.3	6.6	37.1	
Occupation	Collegiate	31.1	6.4	8.61	0.000
	Housekeeper	53.2	7.7	39.1	
	Employed in non-Medical Sciences	34.1	4.9	61	
	Employed in Medical Sciences	8.6	3.4	88	

\*: Mean  $\pm$  SD; \*\*: %

Overall, 96.9% of all the participants hadn't experienced breast cancer. 48% of the participants were informed about breast cancer and screening methods. The

health care personnel and physicians were the largest source of information for the participants in the study. 22 point showed 7% of the participants reported that their

partners have encouraged them for BSE or examination by health care personnel and physicians. Not knowing the correct way for examination was the most common cause in participants with non BSE. However, 90% of the participants were interested to learn the correct way of examination. 11% of all the participants reported a positive family

history of breast cancer. The Mean  $\pm$  SD knowledge score was  $22.43 \pm 11.01$ . The Mean  $\pm$  SD attitude and performance score were  $29.08 \pm 3.34$  and  $3.52 \pm 1.66$  respectively. Distribution of absolute and relative level of knowledge, attitude and practice of screening for breast cancer in women referred to health centers in Ilam is presented (Table 2).

**Table 2:** Distribution of absolute and relative level of knowledge, attitude and practice of screening for breast cancer and in women referred to health centers in Ilam in 2013

Characteristics	Level of variable*		
	Poor	Medium	Good
Knowledge	170 (43.9)	26 (6.7)	187 (48.3)
Attitude	52 (13.4)	289 (74.7)	42 (10.9)
Performance	0 (0)	313 (81.7)	70 (18.3)

\*: N(%)

Statistical analysis showed that there was a significant relationship between age, job and education with attitudes and practices towards women with breast cancer and screening methods ( $P < 0.05$ ), but there wasn't a significant relationship between the marital status, history of benign breast disease and family history with KAP of breast cancer and screening methods ( $P > 0.05$ ).

## DISCUSSION

The present study was conducted to assess the KAP of breast cancer screening procedures among women referred to health centers in Ilam in 2013.

In the present study, 43.9% of the participants had a low level of knowledge of breast cancer and screening methods. Nourizadeh et al study, consistent with the present study, suggested that about half of the women had poor knowledge of breast cancer and BSE techniques.<sup>4</sup> Similar age and occupation of the participants could explain consistent findings of the two studies. In

another study, 50% of the women employed in the medical occupations had a good knowledge of BSE.<sup>12</sup>

In our study, 74.7% of the participants had a medium attitude towards breast cancer and screening methods. Only 10.9% of the participants had a good attitude towards breast cancer and screening methods. However a study in Iran reported a positive attitude towards BSE in the studied population.<sup>12</sup>

In the present study there was a significant relationship between age and KAP of breast cancer screening methods among women, which is consistent with Nourizadeh et al study.<sup>4</sup> However the results of another study are inconsistent with the results of the present study.<sup>13</sup>

In the present study, there was a statistically significant association between level of education and KAP of breast cancer and screening methods in the studied women ( $P = 0.001$ ). Several studies have reported an association between level of education and BSE.<sup>14-21</sup> A survey in Iran showed a significant correlation between education level

and knowledge of breast cancer symptoms, BSE and mammography.<sup>14</sup>

Maybe women with higher levels of education have searched for the sources of information on breast cancer, its symptoms and the diagnostic process more frequently compared with women with lower levels of education. Thus increased knowledge of this group will improve their performance.

Based on our results there was a significant relationship between occupation and knowledge, attitude and practice about breast cancer and screening methods. This relationship was apparent among women employed in the medical occupations. Other studies have confirmed the results of present study.<sup>1,3</sup> In most cases, employed women have a higher education level in comparison to non-working women. So, in the present study, all women with primary education and only one third of women with university education were housewives. Possibly, women with high levels of education have searched for strategies more frequently than low levels of education women. On the other hand, most women with higher education have more social connections and use others' information. These reasons can increase the level of KAP of breast cancer and screening methods among employed women compared to others.

## CONCLUSION

Further training is necessary to enhance awareness and more research should be conducted to identify barriers to women's performance.

## CONFLICT OF INTEREST

Based on the results of the present study, however, half of the participants had good knowledge of breast cancer and screening procedures, but, all the participants with good knowledge had not good practice. Therefore, further training is necessary to enhance

awareness and more research should be conducted to identify barriers to women's performance.

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